

Figure 1A Top view

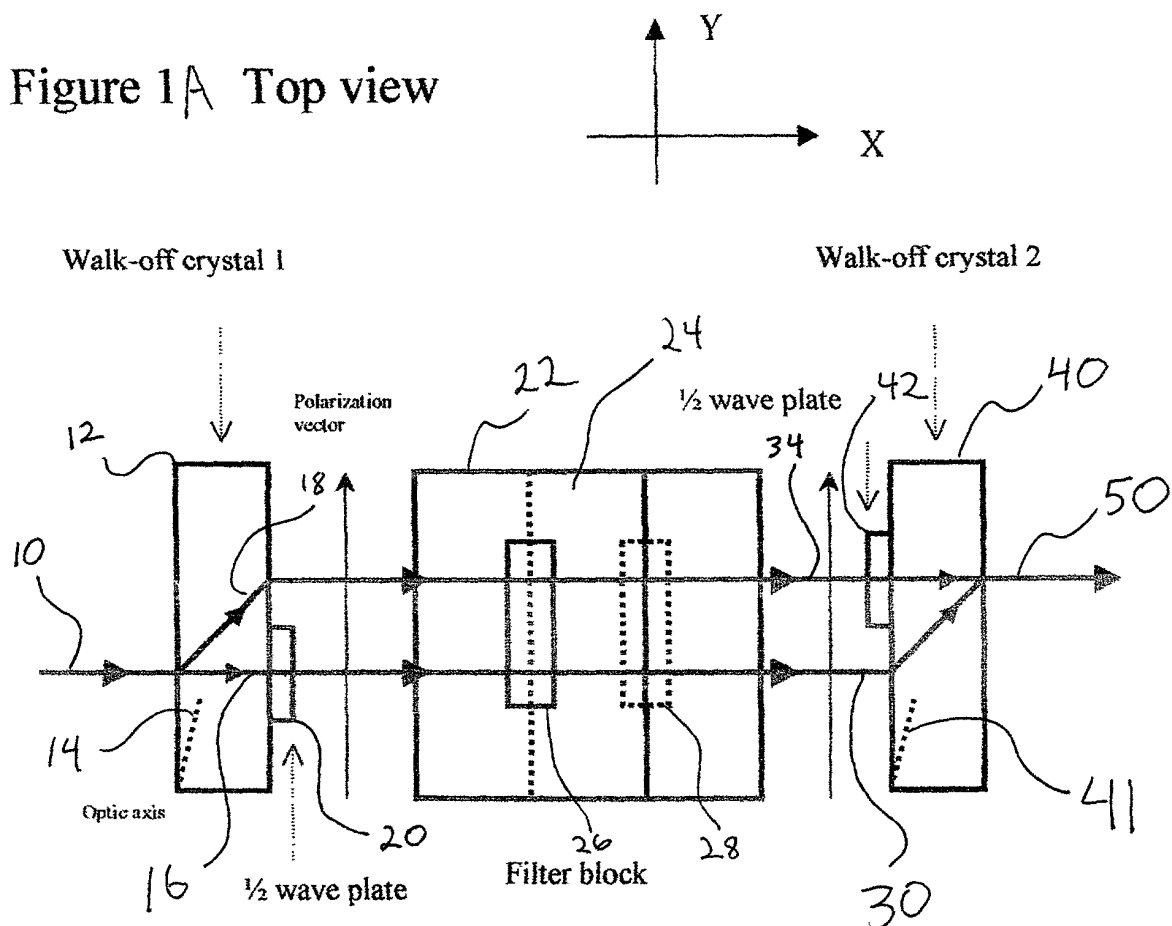


Figure 1B Side view

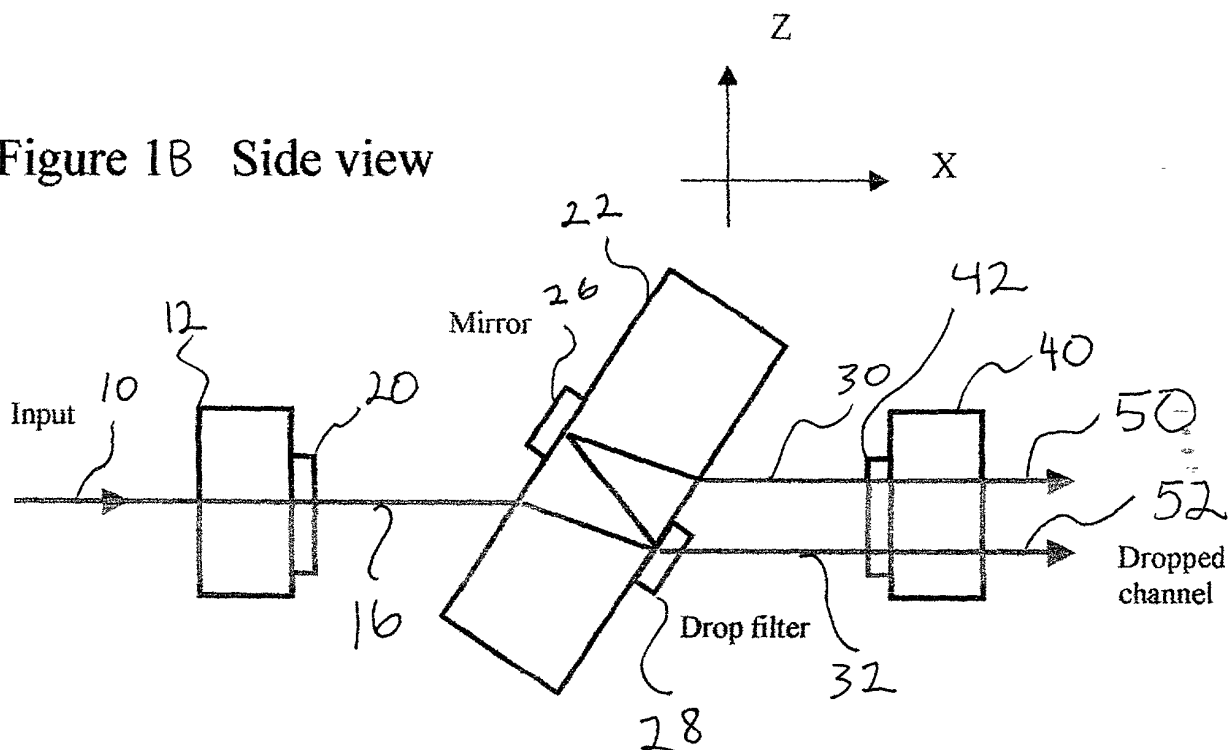


Figure 2. Anti-beam shift device

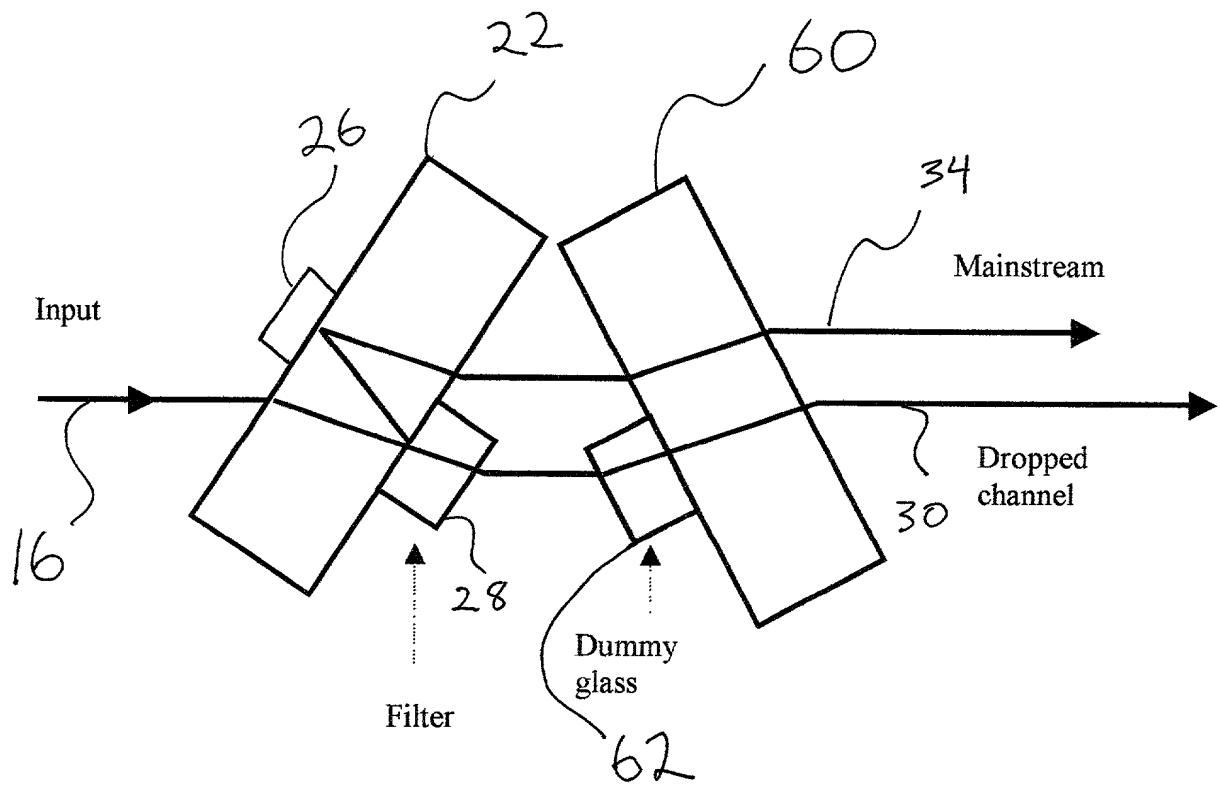


Fig.3A

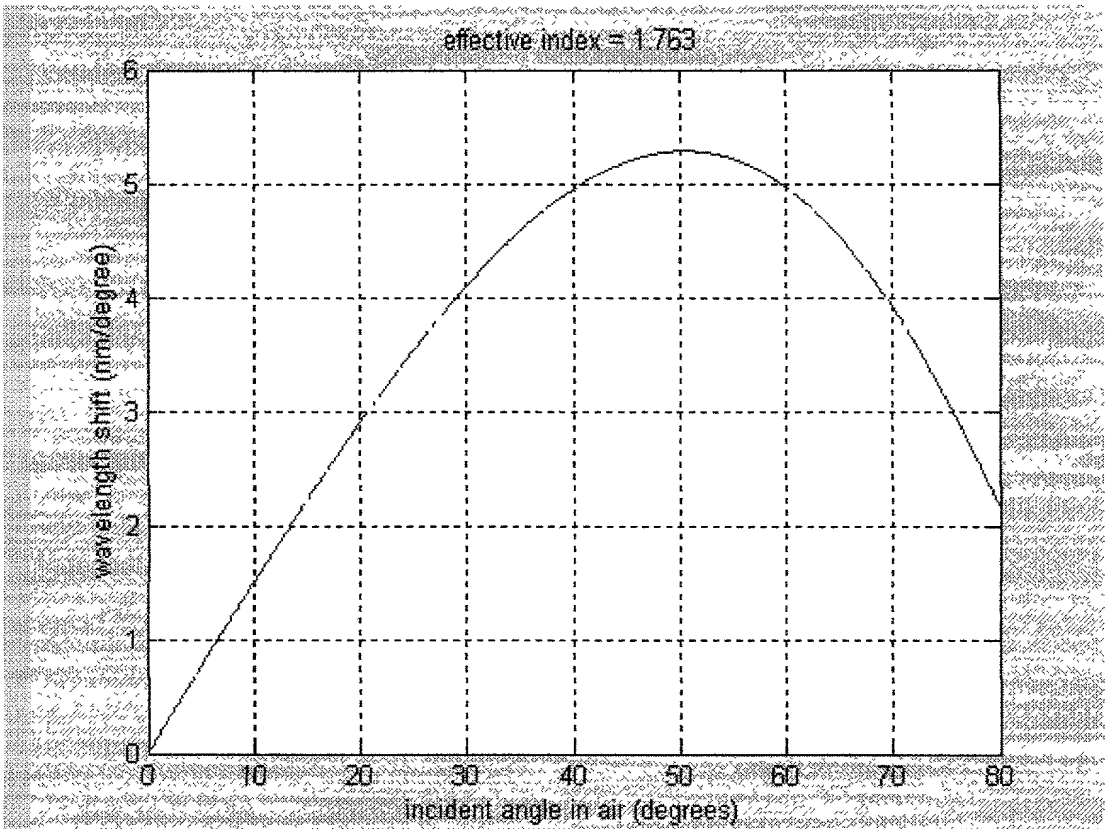
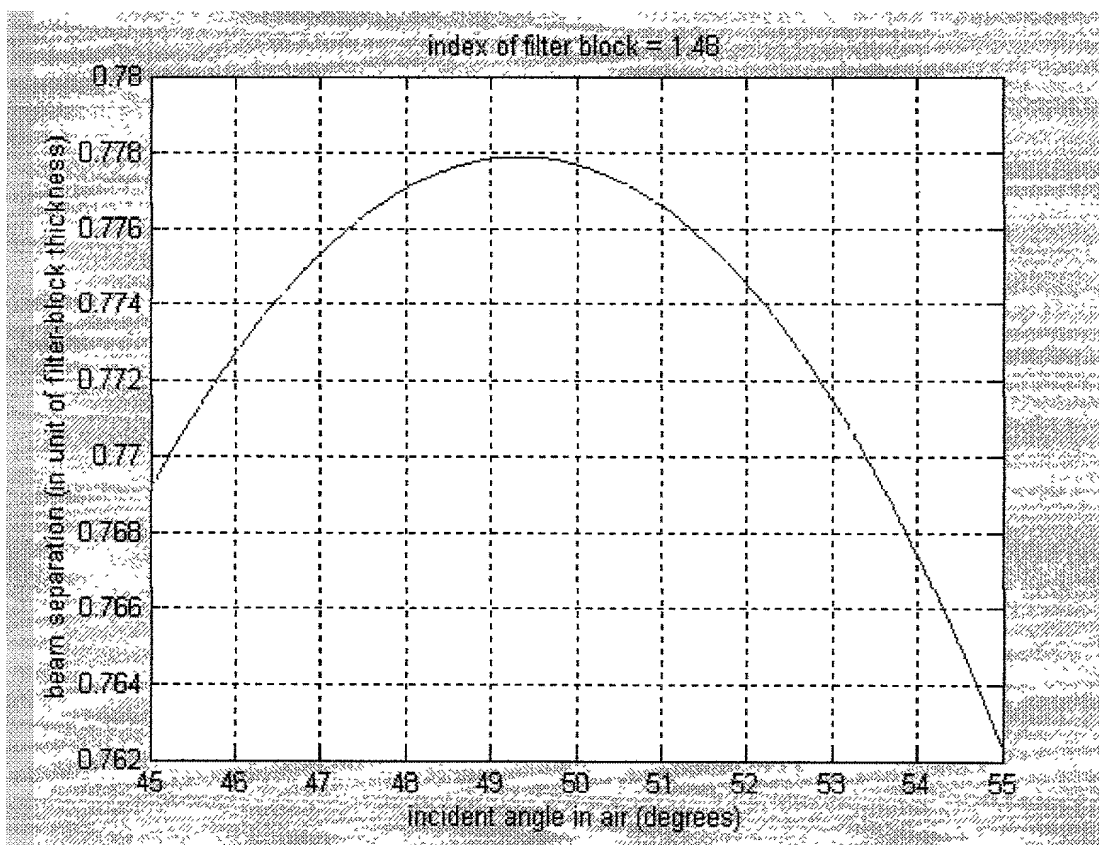


Fig.3B



Figure
3C



TOP SECRET

Figure 4, Polarization beam separation through PBS

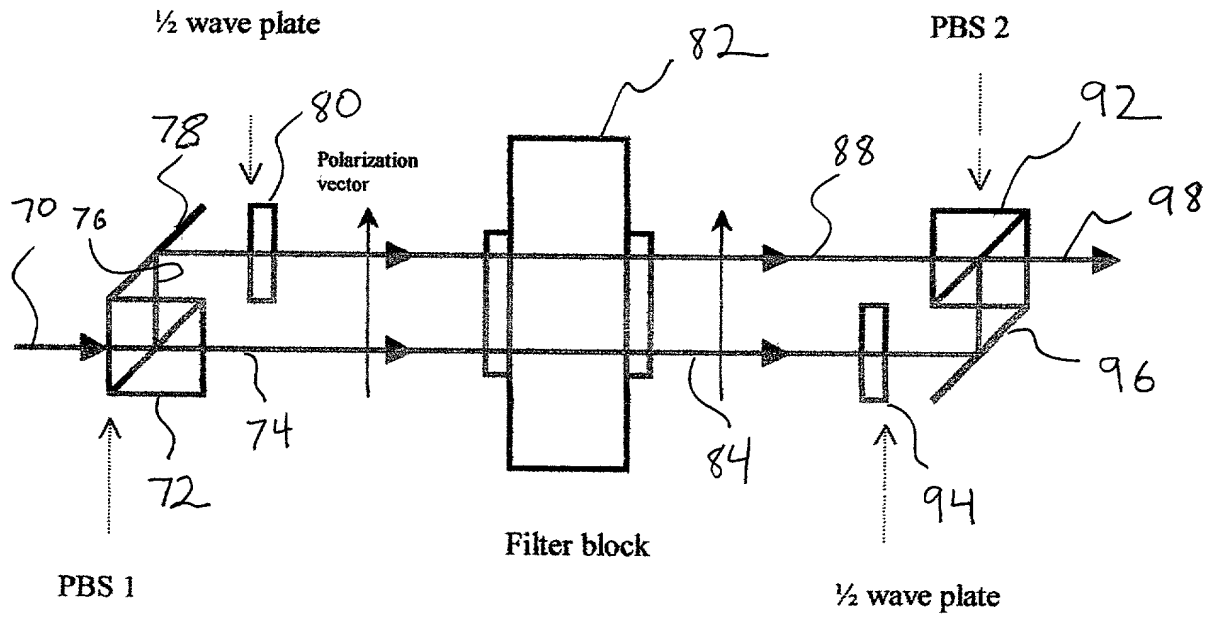


Figure 5. The main stream is collected by a corner cube

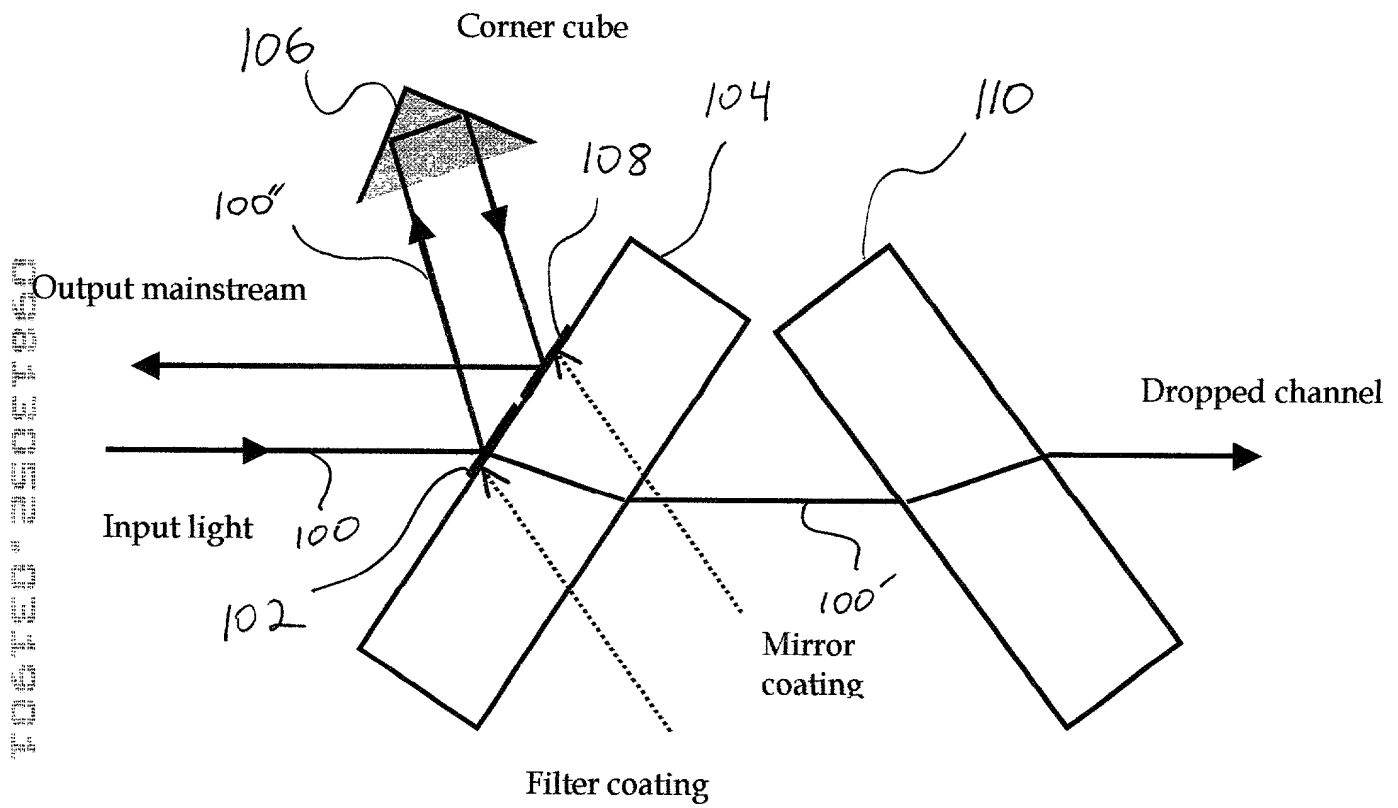


Figure 6: A 4-port device, which can do add and drop simultaneously

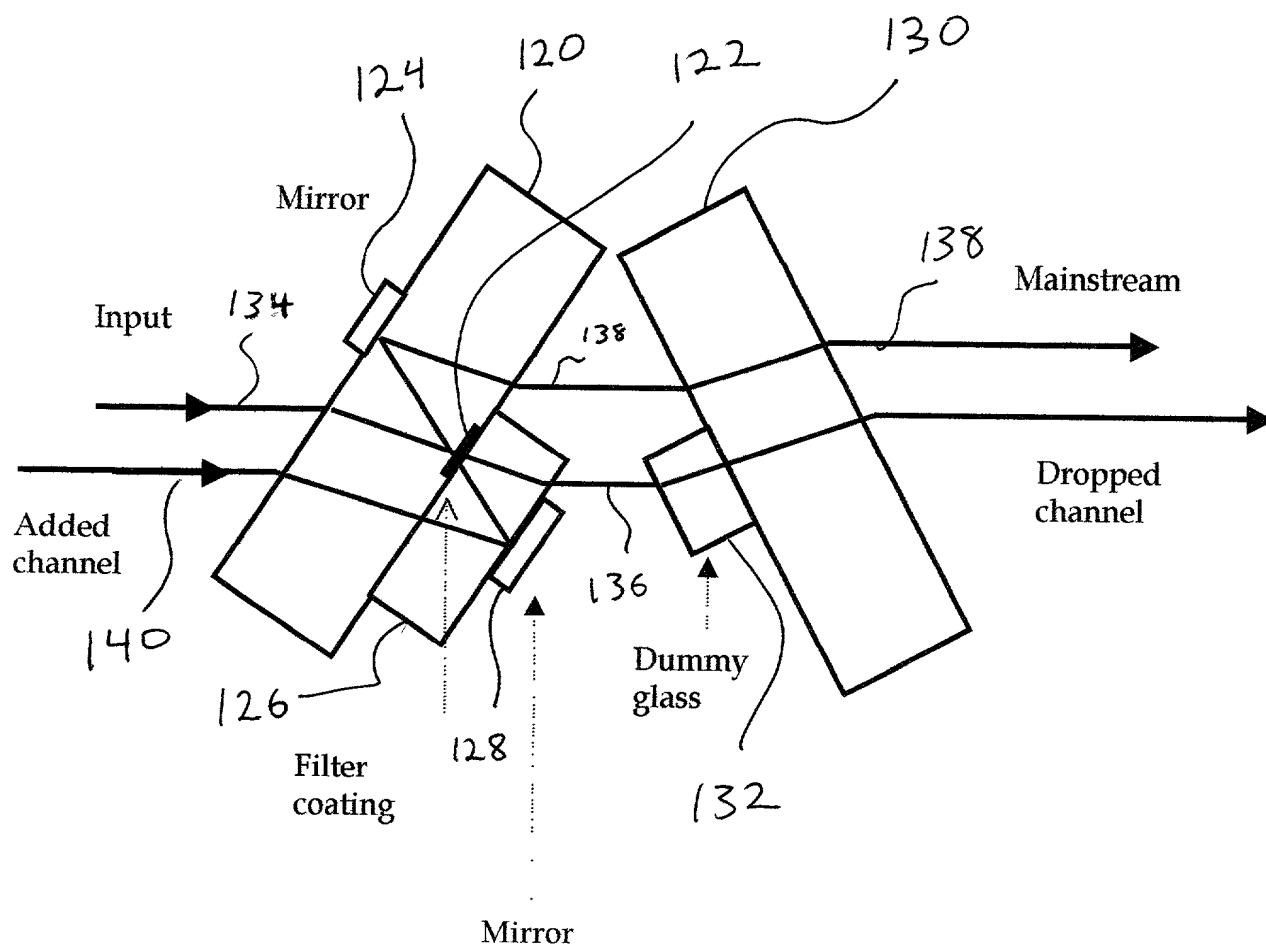
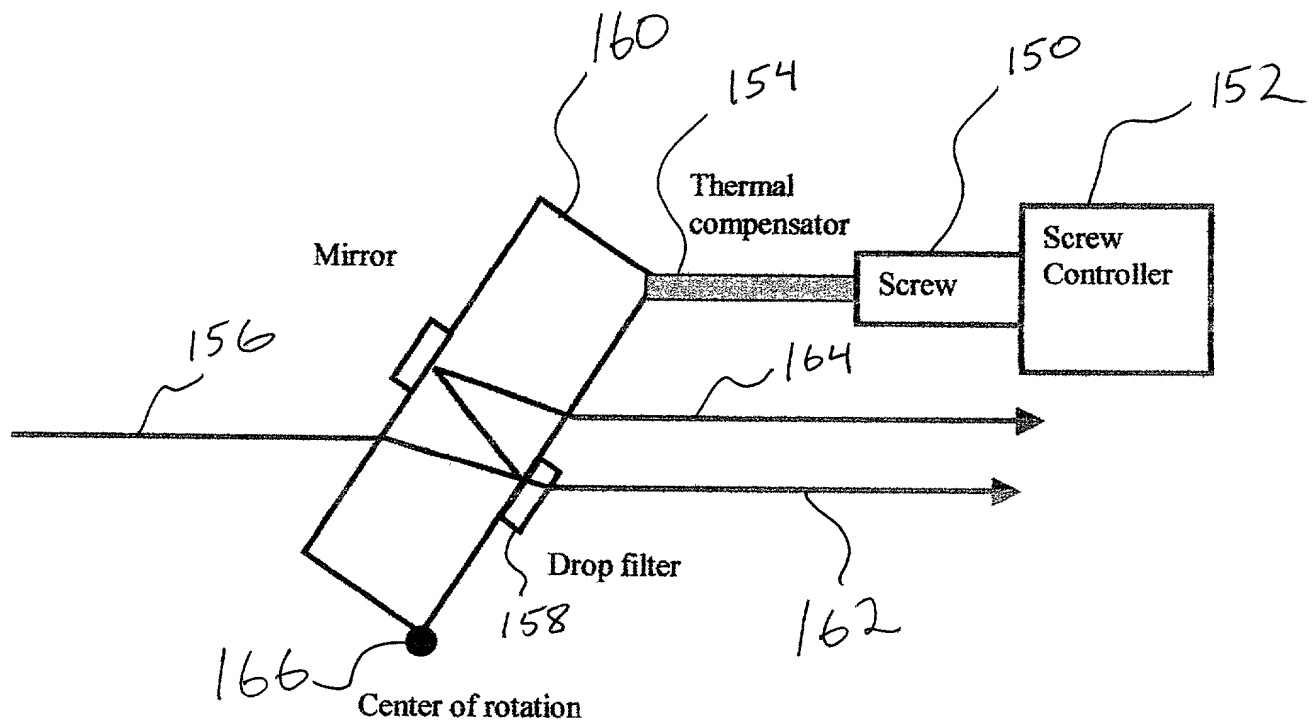


Figure 7 Thermal compensator



Principle: Normally, the incident angle of the filter is set by the screw position, which is controlled by the screw controller. As the temperature increases, the length of the thermal compensator increases due to thermal expansion. This makes the incident angle to the filter decreases. Assuming that the higher temperature shifts the filter pass-band wavelength to longer side, since the incident angle is decreasing accordingly, the pass-band wavelength of the device will stay the same.

Figure 8: Plan-parallel-plate formed wedge used as a frame of tunable filter

